

### **Listing of the Claims:**

The following listing of claims will replace all prior versions and listings of claims in the application.

1-37. (Canceled)

38. (Previously Presented) A hyperimmune serum-reactive antigen comprising an amino acid sequence from any of SEQ ID NOs: 179-356 or fragments thereof.

39. (Previously Presented) The hyperimmune serum-reactive antigen or fragment of claim 38, further defined as a peptide comprising an amino acid sequence described in the "predicted immunogenic aa" and/or "location of identified immunogenic region" of Table 1 or of a serum reactive epitope of Table 3.

40. (Previously Presented) The hyperimmune serum reactive antigen or fragment of claim 38, further defined as comprising an amino acid sequence of amino acids: 63-91, 95-101, 110-116, 134-148, 150-156, 158-164, 188-193, 197-209, 226-241, 247-254, 291-297, 312-319, 338-346, 351-358, 366-378, 404-410, 420-438, 448-454, 465-473, 482-488, 490-498, 503-510, 512-519, 531-543, 547-554, 568-575, 589-604, 610-631 and 239-308 of SEQ ID NO:179; 16-29, 35-47, 50-68, 70-79, 91-101, 143-149, 158-163, 185-191, 196-206, 215-224, 230-237, 244-251, 258-278, 290-311, 319-325, 338-351, 365-385, 396-429, 445-454, 458-466, 491-499, 501-521, 17-79 and 218-233 of SEQ ID NO:180; 4-10, 16-41, 46-66, 77-84, 91-97, 102-118, 125-144, 187-200, 202-214, 245-253, 255-261, 286-295, 300-330, 335-342, 350-361, 363-381, 385-392, 396-416, 435-450 and 460-470 of SEQ ID NO:181; 11-19, 27-48, 52-59, 77-82, 84-107, 118-125, 127-154, 178-183, 192-209, 215-221, 286-295, 302-313, 350-357, 402-415, 417-431, 453-463, 465-493 and 313-331 of SEQ ID NO:182; 19-26, 30-43, 47-55, 63-68, 72-80, 97-104, 107-119, 129-146, 160-175, 194-216, 231-251, 254-260 and 26-43 of SEQ ID NO:183; 7-13, 29-37, 65-81, 110-120, 123-131, 135-152, 230-249, 254-260, 284-290, 292-299, 317-326, 329-336, 403-444, 452-458, 466-477, 490-498, 510-519, 541-550, 557-566 and 533-567 of SEQ ID NO:184; 5-47, 71-77, 79-86, 89-95, 120-126, 137-144, 176-181, 184-196, 202-208, 211-232, 236-282, 301-313, 317-325, 341-347, 353-384, 394-400, 412-433, 436-443 and 59-75 of SEQ ID NO:185; 4-18, 22-38, 59-69, 106-112, 116-130, 138-149, 156-170, 175-197, 200-214, 216-223, 233-244, 255-261, 266-276, 279-286, 325-333, 342-348, 366-399, 402-420, 429-441, 1-104 and

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NO:350; 4-17, 35-41, 46-89, 93-98 and 71-89 of SEQ ID NO:351; 4-12, 14-24 and 2-17 of SEQ ID NO:352; 9-17 and 5-16 of SEQ ID NO:353; 7-41, 48-58, 63-75, 80-89 and 43-53 of SEQ ID NO:354; 4-22, 25-30 and 4-14 of SEQ ID NO:355; 4-55 and 18-33 of SEQ ID NO:356; 262-280 of SEQ ID NO:179; 131-146 of SEQ ID NO:186; 207-224 of SEQ ID NO:188; 27-50, 203-217 and 313-325 of SEQ ID NO:189; 110-129 of SEQ ID NO:192; 156-179, 174-197, 192-215, 210-233, 228-251 and 246-267 of SEQ ID NO:190; 377-400 of SEQ ID NO:196; 34-43, 234-257 and 350-367 of SEQ ID NO:203; 304-327 of SEQ ID NO:207; 25-48, 43-66 and 61-82 of SEQ ID NO:222; 398-421, 416-439, 434-457, 452-475, 470-493, 488-511, 506-529, 524-547, 621-644, 639-664, 707-730, 725-748, 743-766, 761-784, 779-802, 797-820, 984-1007, 1002-1025, 1020-1043, 1038-1061, 1056-1079, 1074-1097, 1092-1115, 1286-1309, 1304-1327, 1322-1345, 1340-1363, 1358-1381, 1376-1399, 1394-1417, 1412-1435, 1430-1453, 1448-1471, 1466-1489 and 1484-1507 of SEQ ID NO:226; 188-211, 206-229, 224-247, 242-265, 260-283 and 278-296 of SEQ ID NO:227; 56-79 and 122-132 of SEQ ID NO:229; 35-46 of SEQ ID NO:231; 178-201, 196-219, 214-237, 232-255, 250-273, 268-291, 379-402, 397-420, 415-438, 433-456, 451-474, 642-665, 660-683, 678-701, 696-719, 714-737, 732-755, 750-773, 768-791, 899-922, 917-940, 935-958, 1037-1060, 1055-1078, 1073-1096 and 1091-1114 of SEQ ID NO:232; 330-346 of SEQ ID NO:233; 571-594, 589-612, 607-630, 625-648, 643-666 and 661-684 of SEQ ID NO:242; 188-207 of SEQ ID NO:244; 61-84, 308-331, 326-349, 344-367, 362-385, 380-403 and 398-421 of SEQ ID NO:249; 79-98, 345-366, 844-867, 870-887 and 890-905 of SEQ ID NO:258; 94-109 of SEQ ID NO:268; 188-207 of SEQ ID NO:272; 290-306 of SEQ ID NO:276; 826-849 of SEQ ID NO:277; 228-252, 247-270, 265-288, 283-306, 301-324, 955-978, 973-996, 991-1014, 1009-1032, 1027-1050, 1045-1068, 2533-2556, 2551-2574, 2569-2592, 2587-2610, 2605-2628 and 2623-2646 of SEQ ID NO:279; 86-109 and 104-127 of SEQ ID NO:288; 546-560 of SEQ ID NO:289; 260-271 of SEQ ID NO:290; 106-129, 124-147, 142-165, 160-183, 178-201 and 375-398 of SEQ ID NO:291; 284-307 of SEQ ID NO:292; 362-385 of SEQ ID NO:301.

41. (Previously Presented) The hyperimmune serum-reactive antigen or fragment of claim 38, comprising at least 6 contiguous amino acids of any of SEQ ID NOs: 179-356.

42. (Previously Presented) The hyperimmune serum-reactive antigen or fragment of claim 38, comprising at least 8 contiguous amino acids of any of SEQ ID NOs: 179-356.

43. (Previously Presented) The hyperimmune serum-reactive antigen or fragment of claim 38, comprising at least 10 contiguous amino acids of any of SEQ ID NOs: 179-356.
44. (Previously Presented) The hyperimmune serum-reactive antigen or fragment of claim 38, further defined as directed against *H. pylori*.
45. (Previously Presented) A pharmaceutical composition comprising a hyperimmune serum-reactive antigen or fragment of claim 38.
46. (Previously Presented) The pharmaceutical composition of claim 45, wherein the hyperimmune serum-reactive antigen or fragment is directed against *H. pylori*.
47. (Previously Presented) The pharmaceutical composition of claim 45, further defined as comprising at least two different hyperimmune serum-reactive antigens and/or fragments.
48. (Previously Presented) The pharmaceutical composition of claim 47, wherein the at least two different hyperimmune serum-reactive antigens and/or fragments are both directed against *H. pylori*.
49. (Previously Presented) The pharmaceutical composition of claim 45, further comprising an immunostimulatory substance.
50. (Previously Presented) The pharmaceutical composition of claim 49, wherein the immunostimulatory substance is a polycationic polymer, an immunostimulatory deoxynucleotide (ODN), a peptide containing at least two LysLeuLys motifs, a neuroactive compound, alum, or a Freund's complete or incomplete adjuvant.
51. (Previously Presented) The pharmaceutical composition of claim 50, wherein the polycationic polymer is a polycationic peptide.
52. (Previously Presented) The pharmaceutical composition of claim 50, wherein the neuroactive compound is human growth hormone.
53. (Previously Presented) The pharmaceutical composition of claim 45, further defined as a vaccine.

54. (Previously Presented) The pharmaceutical composition of claim 53, further defined as a vaccine for treatment and/or prevention of H. pylori infection.

55. (Withdrawn) A method of vaccinating a subject comprising:

obtaining a pharmaceutical composition of claim 45; and  
administering the pharmaceutical composition to a subject;

wherein the subject is vaccinated.

56. (Withdrawn) The method of claim 55, wherein the subject is a human.

57. (Withdrawn) The method of claim 55, further defined as a method of treating and/or preventing H. pylori infection in the subject.

58. (Withdrawn) The method of claim 55, wherein the hyperimmune serum-reactive antigen or fragment is directed against H. pylori.

59. (Withdrawn) The method of claim 55, wherein the pharmaceutical composition comprises at least two different hyperimmune serum-reactive antigens or fragments thereof.

60. (Withdrawn) The method of claim 59, wherein the at least two different hyperimmune serum-reactive antigens or fragments thereof are both directed against H. pylori.